

12-18-06

5FW 1625

Attorney Docket No. 57070-8021.US00



Express Mail Label No. EV 326 984 628 US

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: YUAN *et al.*

APPLICATION NO.: 10/591,358

FILED: August 31, 2006

FOR: TRIPTOLIDE DERIVATIVES FOR  
MODULATION OF APOPTOSIS AND  
IMMUNOSUPPRESSION

EXAMINER: To be Assigned

ART UNIT: 1625

CONF. No: 9546

**Information Disclosure Statement Within Three Months of Application  
Filing or Before First Action – 37 C.F.R. § 1.97(b)**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

1. Timing of Submission

This information disclosure is being filed within three months of the filing date of this application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever occurs last (37 C.F.R. § 1.97(b)). The references listed on the enclosed Form PTO-1449 (modified) may be material to the examination of this application; the Examiner is requested to make them of record in the application.

2. Cited Information

- ☒ Copies of references 1-8 are issued patent(s) and published application(s) and are not included (see C.F.R. § 1.98(a)(2)(i)).
- ☒ Copies of references 9-28 are enclosed.

3. Effect of Information Disclosure Statement (37 C.F.R. § 1.97(h))

This Information Disclosure Statement is not to be construed as a representation that: (i) a search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the cited information is, or is considered to be, material to patentability. In addition, applicant does not admit that any enclosed item of information constitutes prior

art to the subject invention and specifically reserves the right to demonstrate that any such reference is not prior art.

4. Fee Payment

No fees are believed due because this Information Disclosure Statement is being filed before the mailing date of the first Office Action.


However, should the Commissioner determine that fees are due in order for this Information Disclosure Statement to be considered, the Commissioner is hereby authorized to charge such fees to Deposit Account No. 50-2207.

5. Patent Term Adjustment (37 C.F.R. § 1.704(d))

- ☐ The undersigned states that each item of information submitted herewith was cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this statement. 37 C.F.R. § 1.704(d).

Respectfully submitted,  
Perkins Coie LLP

Date: December 14, 2006

  
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**Form PTO-1449 (Modified)  
(Use several sheets if necessary)**COMPLETE IF KNOWN**

Application Number	10/591,358
Filing Date	August 31, 2006
First Named Inventor	Yuan et al.
Group Art Unit	1625
Confirmation No.	9546
Examiner Name	To be Assigned
Attorney Docket No.	57070-8021.US00

Sheet 1 of 2

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No.	U.S. Patent or Application		Name of Patentee or Inventor of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Figures Appear
		NUMBER	Kind Code (if known)			
	1.	4,005,108		Kupchan <i>et al.</i>	7/87	
	2.	5,294,443		Lipsky <i>et al.</i>	3/94	
	3.	5,663,335	A	Qi <i>et al.</i>	9/97	
	4.	5,962,516	A	Qi <i>et al.</i>	10/99	
	5.	5,972,998		Jung <i>et al.</i>	10/99	
	6.	6,004,999	A	Jung <i>et al.</i>	12/99	
	7.	6,150,539	A	Musser	11/00	
	8.	6,569,893	B2	Dai <i>et al.</i>	5/03	

**FOREIGN PATENT DOCUMENTS**

Examiner Initial	Cite No.	Foreign Patent or Application			Name of Patentee or Applicant of Cited Document	Date of Publication or Filing Date of Cited Document	Pages, Columns, Lines, Where Relevant Figures Appear	T
		Office	NUMBER	Kind Code				
	9.	JP	03 178977		Chugoku Igaku Kagak	8/91		
	10.	PCT	WO00/12483		Pharmagenesis, Inc.	3/00		
	11.	PCT	WO97/31920		Pharmagenesis, Inc.	9/97		
	12.	PCT	WO97/31921		Pharmagenesis, Inc.	9/97		
	13.	PCT	WO98/52933		Hoechst Marion Roussel Inc.	11/98		
	14.	PCT	WO98/52951		Hoechst Marion Roussel Inc.	11/98		

**OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume issue number(s), publisher, city and/or country where published.	T
	15.	Anderson <i>et al.</i> , "Synthesis, Evaluation of Chemical Reactivity, and Murine Antineoplastic Activity of 2-Hydroxy-5-(3,4-dichlorophenyl)-6,7-bis(hydroxymethyl)-2,3-dihydro-1H-pyrrolizine Bis(2-propylcarbamate) and 2-Acyloxy Derivatives as Potential Water-Soluble Prodrugs <sup>1</sup> ", <i>J. Med. Chem.</i> , 26:1333-1338 (1983).	
	16.	de Groot Franciscus M. H. <i>et al.</i> , "Synthesis and Biological Evaluation of 2'-Carbamate-Linked and 2'-Carbonate-Linked Prodrugs of Paclitaxel: Selective Activation by the Tumor-Associated Protease Plasmin", <i>J. Med. Chem.</i> , 43:3093-3102 (2000).	

EXAMINER

DATE CONSIDERED



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Form PTO-1449 (Modified)  
(Use several sheets if necessary)

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17.	Dittert, L.W. <i>et al.</i> , "Acetaminophen Prodrugs I Synthesis, Physicochemical Properties, and Analgesic Activity", <i>Journal of Pharmaceutical Sciences</i> , <u>57</u> (5):774-780 (1968).
18.	Dittert, L.W. <i>et al.</i> , "Acetaminophen Prodrugs II Effect of Structure and Enzyme Source on Enzymatic and Nonenzymatic Hydrolysis of Carbonate Esters," <i>J. of Pharm. Sciences</i> , <u>57</u> (5):780-783 (1968).
19.	Hansen <i>et al.</i> , "Carbamate Ester Prodrugs of Dopaminergic Compounds: Synthesis, Stability, and Bioconversion", <i>Journal of Pharmaceutical Sciences</i> , <u>80</u> (8):793-798 (1991).
20.	Hansen <i>et al.</i> , "Ketobemidone prodrugs for buccal delivery", <i>Acta Pharm. Nord.</i> , <u>3</u> (2):77-82 (1991).
21.	Huang <i>et al.</i> , "Hydrolysis of Carbonates, Thiocarbonates, Carbamates, and Carboxylic Esters of $\alpha$ -Naphthol, $\beta$ -Naphthol, and <i>p</i> -Nitrophenol by Human, Rat, and Mouse Liver Carboxylesterases", <i>Pharmaceutical Research</i> , <u>10</u> (5):639-648 (1993).
22.	Kahns <i>et al.</i> , "Prodrugs of Peptides. 18. Synthesis and Evaluation of Various Esters of Desmopressin (dDAVP)", <i>Pharmaceutical Research</i> , <u>10</u> (1):68-74 (1993).
23.	Nassar <i>et al.</i> , "Effects of Structural Variations on the Rates of Enzymatic and Nonenzymatic Hydrolysis of Carbonate and Carbamate Esters", <i>Journal of Pharmaceutical Sciences</i> , <u>81</u> (3):295-298 (1992).
24.	Savolainen <i>et al.</i> , "Synthesis and <i>in vitro</i> and <i>in vivo</i> evaluation of novel oral <i>N</i> -alkyl- and <i>N,N</i> -dialkyl-carbamate esters of entacapone," <i>Life Sciences</i> , <u>67</u> :205-216 (2000).
25.	Tunek <i>et al.</i> , "Hydrolysis of $^3\text{H}$ -Bambuterol, A Carbamate Prodrug of Terbutaline, in Blood from Humans and Laboratory Animals <i>In Vitro</i> ", <i>Biochemical Pharmacology</i> , <u>37</u> (20):3867-3876 (1988).
26.	Weibel <i>et al.</i> , "Macromolecular prodrugs IXX. Kinetics of hydrolysis of benzyl dextran carbonate ester conjugates in aqueous buffer solutions and human plasma", <i>Acta Pharm. Nord.</i> , <u>3</u> (3):159-162 (1991).
27.	Yang <i>et al.</i> , <i>Tetrahedron Letters</i> , <u>38</u> (39):6865-6868 (1997).
28.	Yu <i>et al.</i> , <i>Chinese Chemical Letters</i> , <u>2</u> (12):937-940 (1991).

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DATE CONSIDERED